

METHOD OF FORMING A METAL GATE ELECTRODE

Abstract of the Disclosure

5 The present invention includes a method of forming a metal gate electrode on which whiskers are not formed after performing a selective oxidation process and a subsequent heating process. The metal gate electrode is formed by forming a metal gate electrode pattern which is comprised of a polysilicon layer and a metal layer, and performing a selective oxidation process. After the selective oxidation process, the metal gate electrode undergoes a subsequent heating treatment. The selective oxidation process is carried out in a nitrogen containing gas ambient, so that a metal oxide layer is minimally formed on the metal layer. As a result, it is prevented from causing whiskers on the metal layer.

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